

Remarks

Claims 1-36 are in this application. No amendments have been made to any of the claims.

Claims 1-36 were rejected under 35 USC 103(a) as being unpatentable over Gutierrez et al (IEEE, An introduction to PSTD for IS-95 and CDMA2000) in view of Kuchi et al (US Patent 6,748,024). Specifically, the office action alleges that Kuchi et al disclose adding a "phase swept signal s(1b) to a signal s(2) to produce a summed signal s(3) as shown in Figure 7, i.e., a phase swept signal 706(a) is added to IIN (10) to produce a summed signal (a summed signal IIN produced from an adder 708a)". The office action then concludes "it would have obvious to [one] having ordinary skill in the art at the time the invention was made to add the phase swept into the phase sweep frequency signal as taught by Kuchi et al into the teachings of Gutierrez et al in order to provide high quality transmission rate data". Applicants respectfully traverse.

First, Kuchi et al does not adding a phase swept signal s(1b) to a signal s(2) to produce a summed signal s(3). At Figure 7, the output signal of symbol repeater 702a is modulated with the output signal of Walsh function block 704a to produce a Walsh modulated signal, i.e., output of multiplier 706a. The output signal of Walsh function block 704a is a Walsh function, and not a phase sweep frequency signal. That is, the output signal of multiplier 706a is not a phase swept signal. Therefore, since the output signal of multiplier 706a is not a phase swept signal, then there can be no adding of a phase swept signal to another signal by adder 708a.

Second, the claims require the signal being split, i.e., s_1 , and one of the signals being added, i.e., s_2 , to belong to a STS/OTD pair. The office neither alleges, nor can it be shown, that Kuchi et al or Gutierrez discloses such a STS/OTD pair.

Third, even if the output signal of multiplier 706a is a phase swept signal or a STS/OTD pair is disclosed, there is no suggestion or motivation in any of the references to combine the references. The office action merely alleges that the combination of Kuchi et al and Gutierrez et al would have been obvious to one of ordinary skill in the art. Applicants respectfully request Examiner to provide evidence that it would have obvious at the time of invention to one of ordinary skill in the art to combine the teachings of Kuchi et al with Gutierrez (i.e., it would have been obvious to combine STS/OTD architecture with PSTD architecture).

Independent claims 1, 10, 19 and 28 require splitting a signal belonging to an STS/OTD pair into two, phase sweeping one of the resultant signals, and adding the phase swept signal to

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another signal belonging to the STS/OTD pair. For the aforementioned reasons, neither Gutierrez et al nor Kuchi et al, alone or in combination, teach all the elements of the independent claims nor motivation to combine the references (even if all the elements are taught).

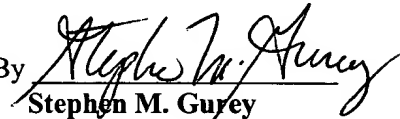
Accordingly, it is felt that claims 1, 10, 19 and 28 are patentable under 35 USC 103(a) over Gutierrez et al in view of Kuchi et al.

Claims 2-9, 11-18, 20-28 and 30-36 depend upon, and include all the limitations of, claims 1, 10, 19 and 28, respectively. Thus, for the same reasons, claims 2-9, 11-18, 20-28 and 30-36 are also felt to be patentable under 35 USC 103(a) over Gutierrez et al in view of Kuchi et al.

Based upon the foregoing reasons, applicants submit that this application is in condition for allowance. Favorable action is respectfully requested.

Respectfully,

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